

**ABSTRACT**

Models are generated using a variety of tools and features of a model generation platform. For example, in connection with a project in which a user generates a predictive model based on historical data about a system being modeled, the user is provided through a graphical user interface a structured sequence of model generation activities to be followed, the sequence including dimension reduction, model generation, model process validation, and model re-generation.

A graphical user interface enables a user of a model generation tool to view and manage subgroups of variables associated with generation of a predictive model including original source variables and derived variables; variable response functions are displayed; variables are edited and transformed into new more predictive variables.